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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/709,581

05/14/2004

Tetsunori ADACHI

2006579-0129 (CTX-086)

3580

69665

7590

11/04/2008

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TWO INTERNATIONAL PLACE
BOSTON, MA 02110

EXAMINER

MAI, KEVIN S

ART UNIT

PAPER NUMBER

2456

MAIL DATE

DELIVERY MODE

11/04/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/709,581	Applicant(s) ADACHI, TETSUNORI	
	Examiner KEVIN S. MAI	Art Unit 2456	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/3/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action has been issued in response to Applicant's Amendment filed July 3, 2008.
2. Claim 29 has been amended. Claims 1-54 have been examined and are pending.

Response to Arguments

3. Applicant's arguments filed July 3, 2008 have been fully considered but they are not persuasive.
4. Applicant's arguments with respect to claim 1 and Araujo have been considered but are not persuasive. Applicant argues that Araujo fails to disclose receiving from said proxy server static image data representing image data representing the screen of graphical display output, or transmitting to a user device, by the proxy server, static image data representing at least a portion of the screen of produced graphical user interface data. Applicant argues that due to Araujo using RDP, it does not disclose sending static image data. However, the recited portion actually states 'this module obtains graphical output displays, as screenshots, generated by the client application program and in RDP form, and converts those screen shots into AIP form and then transmits AIP messages, containing the screen shots, back to the user.' Thus as seen the static image data is sent back to the user because Araujo discloses the AIP messages containing the screen shots (static image data) are sent back to the user. As understood by the examiner a static image is an image that does not move, such as a photo, as opposed to a dynamic image, such as a video. The screen shot it seen to be a static image because it is a single shot of the current image that would be displayed on the screen.

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5. Applicant's arguments with respect to claims 2-6, 11, 12, 15, 16, 18, 20-24 and 31-37 have been considered but are not persuasive. The arguments made are the same as those made towards claim 1 and thus examiner recites the same arguments used above.

6. Applicant's arguments with respect to claim 38 and Araujo have been considered but are not persuasive. Applicant argues that Araujo fails to disclose static image data representative of the screen of graphical display output, or representing at least a portion of the screen of graphical display output, or representing at least a portion of the screen of graphical user interface data. Applicant argues that due to Araujo using graphical HTML pages that contain portions from templates, it does not disclose sending static image data. However, the recited portion states 'each such module also operates in the reverse direction by accepting output information, such as a screen shot or data list, produced by its corresponding office application and converting that information, from its application protocol, into a graphical HTML page in a secure HTTP response or into a transport protocol, such as AIP, secured by SSL.' While applicant cites that Araujo discloses the HTML pages contain portions from templates, it is seen that included with those templates will be the screen shot data (static image data). Thus the static image data is still sent to the user.

7. Applicant's arguments with respect to claims 39-47 and 51-54 have been considered but are not persuasive. The arguments made are the same as those made towards claims 38 and thus examiner recites the same arguments used above.

8. Applicant's arguments with respect to claims 7, 8, 13, 14, 19, 25, 28-30 and 48-50 have been considered but are not persuasive. The arguments made are the same as those made towards claims 1 and 38 and thus examiner recites the same arguments used above.

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9. Applicant's arguments with respect to the specification have been considered but are not persuasive. While the term 50 KB is readily understood, it was being objected to because the specification does not disclose anything about the size of the client application. Paragraphs [0004] and [0005] only disclose that it would be useful to solve the problem of dealing with computing devices that do not provide sufficient memory. However, the specification never discusses the size of the invention. According to MPEP 608.01, this states: "The meaning of every term used in any of the claims should be apparent from the descriptive portion of the specification with clear disclosure as to its import." In this instance, there doesn't appear to be clear disclosure as to the specific size of 50 KB.

Drawings

10. In view of amendments to figure 1 the pending drawing objection has been withdrawn.

Specification

11. In view of amendments to the abstract the pending specification objection has been withdrawn.

12. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

- Claim 17 contains the limitation of the client application using less than 50 KB of memory that is not mentioned in the specification.

Claim Rejections - 35 USC § 112

13. In view of the amendments made to claim 29 the pending rejection under 35 USC § 112 has been withdrawn.

Claim Rejections - 35 USC § 102

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

15. Claims 1-6, 11, 12, 15, 16, 18, 20-24, 31-47 and 51-54 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pub. No. 2001/0047406 to Araujo et al. (hereinafter “Araujo”).

16. **As to Claim 1**, Araujo discloses **a system for displaying at a user device output produced by an application program executing on a server, the system comprising: an application server executing an application program** (Paragraph [0085] of Araujo discloses remotely executing applications through an applications server); **a proxy server receiving from said application server data representing a screen of graphical display output produced by the application program** (Paragraph [0085] of Araujo discloses the SEP (service enablement platform) being provided user screen shot displays);

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a user device executing a client application, said client application receiving from said proxy server static image data representing the screen of graphical display output produced by the application program (Paragraph [0120] of Araujo discloses a module in the SEP obtaining graphical output displays, as screen shots, generated by the client application program and sends them to the user browser of rendering thereat).

17. **As to Claim 2**, Araujo discloses the invention as claimed as described in claim 1 **wherein said application server comprises one of a plurality of servers in a server farm** (Paragraph [0074] of Araujo discloses the office server being implemented as multiple machines. Then figure 1 discloses there being multiple servers. Thus it is seen that the client application server is one of a plurality of servers).

18. **As to Claim 3**, Araujo discloses the invention as claimed as described in claim 1 **wherein said proxy server receives input transmitted from said client application and transmits the received input to said application server** (Paragraph [0084] of Araujo discloses transferring user keystrokes and mouse clicks on the remote PC to the SEP, which then relays that user interaction data to the application server).

19. **As to Claim 4**, Araujo discloses the invention as claimed as described in claim 1 **wherein said proxy server receives data from said application server via a presentation protocol** (Paragraph [0120] of Araujo discloses a module in the SEP obtaining graphical output

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displays generated by the client application program in RDP form. RDP is known to be a presentation protocol).

20. **As to Claim 5**, Araujo discloses the invention as claimed as described in claim 1 wherein said proxy server receives data from said application server via the Independent Computing Architecture (ICA) protocol (Paragraph [0120] of Araujo discloses a module in the SEP obtaining graphical output displays generated by the client application program in RDP form. Then paragraph [0019] discloses using RDP instead of the ICA protocol, thus showing that using the ICA protocol is interchangeable with using RDP).

21. **As to Claim 6**, Araujo discloses the invention as claimed as described in claim 1 wherein said proxy server receives data from said application server via the Remote Display Protocol (RDP) (Paragraph [0120] of Araujo discloses a module in the SEP obtaining graphical output displays generated by the client application program in RDP form).

22. **As to Claim 11**, Araujo discloses the invention as claimed as described in claim 1 wherein said proxy server receives from said application server data representing a change in a screen of graphical display output produced by the application program and transmits updated static image data to said client application (Paragraph [0166] of Araujo discloses the process of the application server providing the initial graphical display screen and then discloses subsequent server-initiated interactions, i.e., bit-map display screens, for this program will be provided by the client application server and processed through the thin-client front end (located

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on the SEP) and then provided to the users browser to appropriately update the display in the corresponding application window).

23. **As to Claim 12**, Araujo discloses the invention as claimed as described in claim 11 **wherein the updated static image data is transmitted by said proxy server after a predetermined period of time has elapsed** (Paragraph [0166] of Araujo discloses that subsequent server-initiated interactions, i.e., bitmap display screens, will be provided by the application server. This is seen as the server initiating updated image transmission periodically or after a predetermined period).

24. **As to Claim 15**, Araujo discloses the invention as claimed as described in claim 1 **wherein said client application receives static image data from said proxy server via the Hyper Text Transfer Protocol (HTTP)** (Paragraph [0117] of Araujo discloses accepting output information, such as a screen shot, from an application and converting it into a graphical HTML page in a secure HTTP response to be rendered in the users browser).

25. **As to Claim 16**, Araujo discloses the invention as claimed as described in claim 1 **wherein said client application comprises a JAVA application** (Paragraph [0150] of Araujo discloses a Java applet running within the browser).

26. **As to Claim 18**, Araujo discloses the invention as claimed as described in claim 1 **wherein said client application requests updated static image data from said proxy server**

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(Figure 13 of Araujo discloses an HTTP_GET_REQ (1310) that results in a Display_Screen (1360) being sent to it).

27. As to **Claim 20**, Araujo discloses **a method for displaying at a user device output produced by an application program executing on a server, the method comprising the steps of:**

(a) executing, by an application server, an application producing a screen of graphical user interface data (Paragraph [0085] of Araujo discloses remotely executing applications through an applications server. Then paragraph [0120] of Araujo discloses the SEP obtaining graphical output displays, as screen shots, generated by the client application program);

(b) transmitting to a proxy server, by the application server, the screen of produced graphical user interface data (Paragraph [0120] of Araujo discloses the SEP obtaining graphical output displays, as screen shots, generated by the client application program);

(c) transmitting to a user device, by the proxy server, static image data representing at least a portion of the screen of produced graphical user interface data (Paragraph [0120] of Araujo discloses a module in the SEP obtaining graphical output displays, as screen shots, generated by the client application program and sends them to the user browser of rendering thereat); **and**

(d) displaying, by the user device, the transmitted static image data (Paragraph [0120] of Araujo discloses a module in the SEP obtaining graphical output displays, as screen shots, generated by the client application program and sends them to the user browser of rendering thereat. Where rendering thereat is seen to be displaying).

28. **As to Claim 21**, Araujo discloses the invention as claimed as described in claim 20 further comprising the step of formatting, by the application server, the screen of graphical user interface data produced by the executing application into at least a first message in a presentation protocol format (Paragraph [0120] of Araujo discloses a module in the SEP obtaining graphical output displays generated by the client application program in RDP form. RDP is known to be a presentation protocol).

29. **As to Claim 22**, Araujo discloses the invention as claimed as described in claim 20 further comprising the step of formatting, by the application server, the screen of graphical user interface data produced by the executing application into at least a first message in Independent Computing Architecture (ICA) protocol format (Paragraph [0120] of Araujo discloses a module in the SEP obtaining graphical output displays generated by the client application program in RDP form. Then paragraph [0019] discloses using RDP instead of the ICA protocol, thus showing that using the ICA protocol is interchangeable with using RDP).

30. **As to Claim 23**, Araujo discloses the invention as claimed as described in claim 20 further comprising the step of formatting, by the application server, the screen of graphical user interface data produced by the executing application into at a first message in Remote Display Protocol (RDP) format (Paragraph [0120] of Araujo discloses a module in the SEP obtaining graphical output displays generated by the client application program in RDP form).

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31. **As to Claim 24**, Araujo discloses the invention as claimed as described in claim 20 **further comprising the step of creating, by the proxy server, a static image file representing at least a portion of the screen of produced graphical user interface data** (Paragraph [0120] of Araujo discloses a module in the SEP converting the screen shots it receives from the client application program into AIP form. Having converted the original screen shots into another form is seen to be the same as having created).

32. **As to Claim 31**, Araujo discloses the invention as claimed as described in claim 20 **wherein step (c) comprises transmitting to a user device via the Hyper Text Transfer Protocol (HTTP), by the proxy server, static image data representing at least a portion of the screen of produced graphical user interface data** (Paragraph [0117] of Araujo discloses accepting output information, such as a screen shot, from an application and converting it into a graphical HTML page in a secure HTTP response to be rendered in the users browser).

33. **As to Claim 32**, Araujo discloses the invention as claimed as described in claim 20 **further comprising the step of receiving, by the proxy server, data representing input from the user device** (Paragraph [0084] of Araujo discloses transferring user keystrokes and mouse clicks on the remote PC to the SEP).

34. **As to Claim 33**, Araujo discloses the invention as claimed as described in claim 32 **further comprising the step of transmitting, by the proxy server, the received user input data to the application server** (Paragraph [0084] of Araujo discloses transferring user

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keystrokes and mouse clicks on the remote PC to the SEP, which then relays that user interaction data to the application server).

35. **As to Claim 34**, Araujo discloses the invention as claimed as described in claim 20 **further comprising the step of receiving, by the proxy server, data from the application execution server representing a change in the screen of produced graphical user interface data** (Paragraph [0166] of Araujo discloses the process of the application server providing the initial graphical display screen and then discloses subsequent server-initiated interactions, i.e., bit-map display screens, for this program will be provided by the client application server and processed through the thin-client front end (located on the SEP) and then provided to the users browser to appropriately update the display in the corresponding application window).

36. **As to Claim 35**, Araujo discloses the invention as claimed as described in claim 34 **further comprising the step of transmitting to a user device, by the proxy server, static image data representing the changed screen of produced graphical user interface data** (Paragraph [0166] of Araujo discloses the process of the application server providing the initial graphical display screen and then discloses subsequent server-initiated interactions, i.e., bit-map display screens, for this program will be provided by the client application server and processed through the thin-client front end (located on the SEP) and then provided to the users browser to appropriately update the display in the corresponding application window).

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37. **As to Claim 36**, Araujo discloses the invention as claimed as described in claim 35 **wherein said transmitting step occurs after a predetermined period of time has elapsed** (Paragraph [0166] of Araujo discloses that subsequent server-initiated interactions, i.e., bitmap display screens, will be provided by the application server. This is seen as the server initiating updated image transmission periodically or after a predetermined period).

38. **As to Claim 37**, Araujo discloses the invention as claimed as described in claim 20 **further comprising the step of transmitting, by the client application, a request for updated static image information** (Figure 13 of Araujo discloses an HTTP_GET_REQ (1310) that results in a Display_Screen (1360) being sent to it).

39. **As to Claim 38**, Araujo discloses **an apparatus for displaying at a user device output produced by an application program executing on a server, the apparatus comprising: a first protocol handler receiving from an application server data in a first protocol format, the data representative of a screen of graphical display output produced by an application executing on the application server** (Paragraph [0117] of Araujo discloses a module in the SEP that accepts output information, such as a screen shot, produced by an office application. Then paragraph [0120] discloses the information being transmitted in RDP form); **and a second protocol handler transmitting to a client application for display static image data in a second protocol format, the static image data representative of at least a portion of the screen of graphical display output received by the first protocol handler** (Paragraph [0117]

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of Araujo discloses a module in the SEP that converts screen shots from the application into a graphical HTML page in a secure HTTP response for transmission to the user browser).

40. **As to Claim 39**, Araujo discloses the invention as claimed as described in claim 38 **wherein the second protocol handler receives from the client application data representative of user input** (Paragraph [0117] of Araujo discloses a module in the SEP that accepts user interaction data such as keystrokes and mouse clicks via AIP or HTTP).

41. **As to Claim 40**, Araujo discloses the invention as claimed as described in claim 39 **wherein the first protocol handler transmits to the application server the data representative of user input received by the second protocol handler** (Paragraph [0117] of Araujo discloses a module in the SEP that takes the user input and then generates a message, in an appropriate application protocol, containing this data to the office application).

42. **As to Claim 41**, Araujo discloses the invention as claimed as described in claim 38 **wherein the first protocol handler translates the received data from the first protocol to the second protocol** (Paragraph [0117] of Araujo discloses a module in the SEP taking screen shot data from the office application and converting it from the application protocol to a graphical HTML page in a secure HTTP response. Then paragraph [0117] of Araujo also discloses a module in the SEP taking input in from the user in HTTP or AIP and converting it into an appropriate application protocol).

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43. **As to Claim 42**, Araujo discloses the invention as claimed as described in claim 38 **wherein the second protocol handler translates the received data from the first protocol to the second protocol** (Paragraph [0117] of Araujo discloses a module in the SEP taking screen shot data from the office application and converting it from the application protocol to a graphical HTML page in a secure HTTP response. Then paragraph [0117] of Araujo also discloses a module in the SEP taking input in from the user in HTTP or AIP and converting it into an appropriate application protocol).

44. **As to Claim 43**, Araujo discloses the invention as claimed as described in claim 38 **further comprising a translation module accessing the data received by the first protocol handler in the first protocol and translating it into at least one message in the second protocol format** (Paragraph [0117] of Araujo discloses a module in the SEP taking screen shot data from the office application and converting it from the application protocol to a graphical HTML page in a secure HTTP response).

45. **As to Claim 44**, Araujo discloses **a method for displaying at a user device graphical display output produced by an application program executing on a server, the method comprising the steps of:**
(a) receiving from an application server, via a first protocol, data representative of a screen of graphical display output produced by an application executing on the application server (Paragraph [0117] of Araujo discloses a module in the SEP accepting output information, such as

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a screen shot, produced by an office application. Then paragraph [0120] discloses it being transmitted via RDP); and

(b) transmitting to a client application for display, via a second protocol, static image data representative of at least a portion of the screen of graphical display output produced by the application executing on the application server (Paragraph [0117] of Araujo discloses a module in the SEP that converts screen shots from the application into a graphical HTML page in a secure HTTP response for transmission to the user browser).

46. **As to Claim 45**, Araujo discloses the invention as claimed as described in claim 44 **further comprising the step of receiving from the client application, via the second protocol, data representative of user input to the application program** (Paragraph [0117] of Araujo discloses a module in the SEP that accepts user interaction data such as keystrokes and mouse clicks via AIP or HTTP).

47. **As to Claim 46**, Araujo discloses the invention as claimed as described in claim 45 **further comprising the step of transmitting to the application server, via the first protocol, data representative of user input received from the client application** (Paragraph [0117] of Araujo discloses a module in the SEP that takes the user input and then generates a message, in an appropriate application protocol, containing this data to the office application).

48. **As to Claim 47**, Araujo discloses the invention as claimed as described in claim 44 **further comprising the step of translating the data representative of the screen of graphical**

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display output from the format of the first protocol to the format of the second protocol

(Paragraph [0117] of Araujo discloses a module in the SEP taking screen shot data from the office application and converting it from the application protocol to a graphical HTML page in a secure HTTP response).

49. As to **Claim 51**, Araujo discloses **a system for displaying at a user device output produced by an application program executing on a server, the system comprising: an application server executing an application program** (Paragraph [0085] of Araujo discloses remotely executing applications through an applications server); **a proxy server receiving from said application server data representing a screen of graphical display output produced by the application program via a presentation-level protocol** (Paragraph [0085] of Araujo discloses the SEP (service enablement platform) being provided user screen shot displays. Then paragraph [0120] of Araujo discloses a module in the SEP obtaining graphical output displays generated by the client application program in RDP form); **a user device executing a client application, said client application receiving from said proxy server static image data representing the screen of graphical display output produced by the application program via Hyper Text Transfer Protocol (HTTP) commands** (Paragraph [0117] of Araujo discloses a module in the SEP accepting output information, such as a screen shot, from an office application and converting it into a graphical HTML page in a secure HTTP response for transmission to and rendering at the user browser).

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50. As to **Claim 52**, Araujo discloses **a method for displaying at a user device output produced by an application program executing on a server, the method comprising the steps of:**

(a) executing, by an application server, an application producing a screen of graphical user interface data (Paragraph [0085] of Araujo discloses remotely executing applications through an applications server. Then paragraph [0120] of Araujo discloses the SEP obtaining graphical output displays, as screen shots, generated by the client application program);

(b) transmitting to a proxy server via a presentation-level protocol, by the application server, the screen of produced graphical user interface data (Paragraph [0120] of Araujo discloses the SEP obtaining graphical output displays, as screen shots, generated by the client application program via RDP);

(c) transmitting to a user device via Hyper Text Transfer Protocol (HTTP) commands, by the proxy server, static image data representing at least a portion of the screen of produced graphical user interface data (Paragraph [0117] of Araujo discloses a module in the SEP accepting output information, such as a screen shot, from an office application and converting it into a graphical HTML page in a secure HTTP response for transmission to and rendering at the user browser); **and**

(d) displaying, by the user device, the transmitted static image data (Paragraph [0117] of Araujo discloses a module in the SEP accepting output information, such as a screen shot, from an office application and converting it into a graphical HTML page in a secure HTTP response for transmission to and rendering at the user browser. Where rendering at the user browser is seen to be displaying).

51. As to Claim 53, Araujo discloses **an article of manufacture having embodied thereon computer-readable program means for displaying at a user device output produced by an application program executing on a server, the article of manufacture comprising:**

computer-readable program (Paragraph [0048] of Araujo discloses virtual office server software executing within the SEP) **means for transmitting to a proxy server a screen of graphical user interface data produced by an application executing on the server** (Paragraph [0120] of Araujo discloses the SEP obtaining graphical output displays, as screen shots, generated by the client application program via RDP);

computer-readable program means for communicating to a user device, by the proxy server, static image data representing at least a portion of the screen of produced graphical user interface data (Paragraph [0117] of Araujo discloses a module in the SEP accepting output information, such as a screen shot, from an office application and converting it into a graphical HTML page in a secure HTTP response for transmission to and rendering at the user browser);

and

computer-readable program means for displaying, by the user device, the transmitted static image data (Paragraph [0117] of Araujo discloses a module in the SEP accepting output information, such as a screen shot, from an office application and converting it into a graphical HTML page in a secure HTTP response for transmission to and rendering at the user browser. Where rendering at the user browser is seen to be displaying).

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52. As to **Claim 54**, Araujo discloses **an article of manufacture having embodied thereon computer-readable programs means for displaying at a user device graphical display output produced by an application program executing on a server, the article of manufacture comprising:**

computer-readable program (Paragraph [0048] of Araujo discloses virtual office server software executing within the SEP) **means for receiving from an application server, via a first protocol, data representative of a screen of graphical display output produced by an application executing on the application server** (Paragraph [0117] of Araujo discloses a module in the SEP that accepts output information, such as a screen shot, produced by an office application. Then paragraph [0120] discloses the information being transmitted in RDP form); **and**

computer-readable programs means for transmitting to a client application for display, via a second protocol, static image data representative of at least a portion of the screen of graphical display output produced by the application executing on the application server (Paragraph [0117] of Araujo discloses a module in the SEP that converts screen shots from the application into a graphical HTML page in a secure HTTP response for transmission to the user browser).

Claim Rejections - 35 USC § 103

53. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

54. Claims 7, 8, 13, 14, 19, 25, 28-30 and 48-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Araujo and further in view of US Pub. No. 2002/0091738 to Rohrabauh et al. (hereinafter "Rohrabauh").

55. **As to Claim 7**, Araujo discloses the invention as claimed as described in claim 1. Araujo does not explicitly disclose **wherein said proxy server modifies the data received from said application server**.

However, Rohrabauh discloses this (Figure 2A of Rohrabauh discloses a client requesting data (100) and then a proxy server requesting the corresponding web server for the data (102). The proxy server than translated the content to scalable vector representations (114) and compressed bitmaps (116) and then sends the translated content to the client (118))

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method of claim 1 as disclosed by Araujo, with modifying data received as disclosed by Rohrabauh. One of ordinary skill in the art at the time the invention was made would have been motivated to combine to create resolution independent vector displays of Internet content to allow it to be scaled larger and smaller for better viewing or to fit any resolution or screen size (Paragraph [0033] of Rohrabauh).

56. **As to Claim 8**, Araujo-Rohrabauh discloses the invention as claimed as described in claim 7 **wherein said proxy server scales the data received from said application server** (Paragraph [0033] of Rohrabauh discloses modifying the content to allow it to be scaled).

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method of claim 1 as disclosed by Araujo, with scaling the data as disclosed by Rohrbaugh. One of ordinary skill in the art at the time the invention was made would have been motivated to combine to create resolution independent vector displays of Internet content to allow it to be scaled larger and smaller for better viewing or to fit any resolution or screen size (Paragraph [0033] of Rohrbaugh).

57. **As to Claim 13**, Araujo discloses the invention as claimed as described in claim 1. Araujo does not explicitly disclose **wherein the static image data received by said client application comprises at least a portion of an image file in GIF format** (Paragraph [0166] of Araujo discloses messages sent containing screen bitmap display data).

However, Rohrbaugh discloses this (Paragraph [0055] of Rohrbaugh discloses that graphic file formats typically used for internet content include bitmap files, GIF files and JPEG files)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method of claim 1 as disclosed by Araujo, with using the GIF format for the image data as disclosed by Rohrbaugh. One of ordinary skill in the art at the time the invention was made would have been motivated to combine to provide the image in a graphic format that is well-known (paragraph [0055] of Rohrbaugh). Since Araujo already discloses using bitmaps it would be obvious to interchange it with other well-known graphic formats.

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58. **As to Claim 14**, Araujo discloses the invention as claimed as described in claim 1.

Araujo does not explicitly disclose **wherein the static image data received by said client application comprises at least a portion of an image in JPEG format** (Paragraph [0166] of Araujo discloses messages sent containing screen bitmap display data).

However, Rohrbaugh discloses this (Paragraph [0055] of Rohrbaugh discloses that graphic file formats typically used for internet content include bitmap files, GIF files and JPEG files)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method of claim 1 as disclosed by Araujo, with using the JPEG format for the image data as disclosed by Rohrbaugh. One of ordinary skill in the art at the time the invention was made would have been motivated to combine to provide the image in a graphic format that is well-known (paragraph [0055] of Rohrbaugh). Since Araujo already discloses using bitmaps it would be obvious to interchange it with other well-known graphic formats.

59. **As to Claim 19**, Araujo discloses the invention as claimed as described in claim 1.

Araujo does not explicitly disclose **wherein said user device comprises a cell phone**.

However, Rohrbaugh discloses this (Paragraph [0050] of Rohrbaugh discloses the invention enabling various devices, including wireless devices such as a cellular phone, a wireless-enabled PDA, and a wireless-enabled laptop computer, as well as landline computers)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method of claim 1 as disclosed by Araujo, with using a cell phone as the user device as disclosed by Rohrbaugh. One of ordinary skill in the art at the time the

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invention was made would have been motivated to combine in order to provide the service of remote access to any device capable of accessing the internet. As Rohrbaugh discloses in paragraph [0050] the system is used to enable various clients, including wireless devices such as a cellular phone to request content that is accessible via a network such as the Internet to be retrieved from selected network resources.

60. **As to Claim 25**, Araujo discloses the invention as claimed as described in claim 20. Araujo does not explicitly disclose **further comprising the step of modifying, by the proxy server, the data received from the application server.**

However, Rohrbaugh discloses this (Figure 2A of Rohrbaugh discloses a client requesting data (100) and then a proxy server requesting the corresponding web server for the data (102). The proxy server then translated the content to scalable vector representations (114) and compressed bitmaps (116) and then sends the translated content to the client (118))

Examiner recites the same rationale to combine used in claim 7.

61. **As to Claim 28**, Araujo-Rohrbaugh discloses the invention as claimed as described in claim 25 **wherein said modifying step comprises scaling the data received from the application server** (Paragraph [0033] of Rohrbaugh discloses modifying the content to allow it to be scaled).

Examiner recites the same rationale to combine used in claim 8.

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62. **As to Claim 29**, Araujo discloses the invention as claimed as described in claim [18] 20.

Araujo does not explicitly disclose **wherein step (c) comprises transmitting to a user device, by the proxy server, GIF image data representing at least a portion of the screen of graphical user output** (Paragraph [0166] of Araujo discloses messages sent containing screen bitmap display data).

However, Rohrabough discloses this (Paragraph [0055] of Rohrabough discloses that graphic file formats typically used for internet content include bitmap files, GIF files and JPEG files)

Examiner recites the same rationale to combine used in claim 13.

63. **As to Claim 30**, Araujo discloses the invention as claimed as described in claim 20.

Araujo does not explicitly disclose **wherein step (c) comprises transmitting to a user device, by the proxy server, JPEG image data representing at least a portion of the screen of graphical user output** (Paragraph [0166] of Araujo discloses messages sent containing screen bitmap display data).

However, Rohrabough discloses this (Paragraph [0055] of Rohrabough discloses that graphic file formats typically used for internet content include bitmap files, GIF files and JPEG files)

Examiner recites the same rationale to combine used in claim 14.

64. **As to Claim 48**, Araujo discloses the invention as claimed as described in claim 44

wherein step (b) comprises transmitting to a client application for display, via a second

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protocol, GIF data representative of at least a portion of the screen of graphical display output of the application executing on the application server (Paragraph [0117] of Araujo discloses a module in the SEP taking screen shot data from the office application and converting it from the application protocol to a graphical HTML page in a secure HTTP response).

Araujo did not teach the usage of GIF, however, Rohrabough discloses this (Paragraph [0055] of Rohrabough discloses that graphic file formats typically used for internet content include bitmap files, GIF files and JPEG files)

Examiner recites the same rationale to combine used in claim 13.

65. **As to Claim 49**, Araujo-Rohrabough discloses the invention as claimed as described in claim 48 **wherein the GIF file is transmitted to the client application via the Hyper Text Transfer Protocol (HTTP)** (Paragraph [0117] of Araujo discloses a module in the SEP taking screen shot data from the office application and converting it from the application protocol to a graphical HTML page in a secure HTTP response. Then paragraph [0055] of Rohrabough discloses that graphic file formats typically used for internet content include bitmap files, GIF files and JPEG files).

Examiner recites the same rationale to combine used in claim 13.

66. **As to Claim 50**, Araujo discloses the invention as claimed as described in claim 44 **wherein step (b) comprises transmitting to a client application for display, via a second protocol, JPEG data representative of at least a portion of the screen of graphical display output of the application executing on the application server** (Paragraph [0117] of Araujo

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discloses a module in the SEP taking screen shot data from the office application and converting it from the application protocol to a graphical HTML page in a secure HTTP response).

Araujo did not teach the usage of JPEG, however, Rohrabough discloses this (Paragraph [0055] of Rohrabough discloses that graphic file formats typically used for internet content include bitmap files, GIF files and JPEG files).

Examiner recites the same rationale to combine used in claim 14.

67. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Araujo and further in view of US Pub. No. 2003/0041110 to Wenocur et al. (hereinafter “Wenocur”).

As to Claim 17, Araujo discloses the invention as claimed as described in claim 1. Araujo does not explicitly disclose **wherein said client application uses less than 50 KB of memory during execution.**

However, Wenocur discloses this (Paragraph [1372] of Wenocur discloses the size of the native code to perform playback of multimedia application is no more than about 50 kilobytes)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method of claim 1 as disclosed by Araujo, with having a less than 50 KB client as disclosed by Wenocur. One of ordinary skill in the art at the time the invention was made would have been motivated to combine in order make a thin low-overhead client (Paragraph [1367] of Wenocur). It is well known that smaller clients run more quickly and slow down the system they run on less and as such it is beneficial to have a small client.

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68. Claims 9, 10, 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Araujo-Rohrbaugh and further in view of US Pub. No. 2003/0055327 to Shaw et al. (hereinafter “Shaw”).

69. **As to Claim 9**, Araujo-Rohrbaugh discloses the invention as claimed as described in claim 7. Araujo-Rohrbaugh does not explicitly disclose **wherein said proxy server modifies the color depth of the data received from said application server.**

However, Shaw discloses this (Paragraph [0191] of Shaw discloses a color quality feature where a quality level is applied to a set of image data to reduce the number of initial number of possible colors to a smaller number of possible colors. This is seen to be modifying the color depth of the data)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method of claim 7 as disclosed by Araujo-Rohrbaugh, with modifying the color depth of the data as disclosed by Shaw. One of ordinary skill in the art at the time the invention was made would have been motivated to combine in order to improve the compression ratio due to the increase in runs of the same color (Paragraph [0178] of Shaw).

70. **As to Claim 10**, Araujo-Rohrbaugh discloses the invention as claimed as described in claim 7. Araujo-Rohrbaugh does not explicitly disclose **wherein said proxy server performs lossy image compression on the data received from said application server.**

However, Shaw discloses this (Paragraph [0191] of Shaw discloses a color quality feature where a quality level is applied to a set of image data to reduce the number of initial number of

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possible colors to a smaller number of possible colors. Then paragraph [0179] discloses using a RLE (run length encoding) compression. Since that color quality feature reduced the number of colors and then the image was compressed the compression was lossy)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method of claim 7 as disclosed by Araujo-Rohrbaugh, with performing lossy compression as disclosed by Shaw. One of ordinary skill in the art at the time the invention was made would have been motivated to combine in order to improve performance by having less bandwidth utilization (paragraph [0177] of Shaw).

71. **As to Claim 26**, Araujo-Rohrbaugh discloses the invention as claimed as described in claim 25. Araujo-Rohrbaugh does not explicitly disclose **wherein said modifying step comprises applying lossy image compression to the data received from the application server.**

However, Shaw discloses this (Paragraph [0191] of Shaw discloses a color quality feature where a quality level is applied to a set of image data to reduce the number of initial number of possible colors to a smaller number of possible colors. Then paragraph [0179] discloses using a RLE (run length encoding) compression. Since that color quality feature reduced the number of colors and then the image was compressed the compression was lossy)

Examiner recites the same rationale to combine used in claim 10.

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72. **As to Claim 27**, Araujo-Rohrbaugh discloses the invention as claimed as described in claim 25. Araujo-Rohrbaugh does not explicitly disclose **wherein said modifying step comprises changing the color depth of the data received from the application server.**

However, Shaw discloses this (Paragraph [0191] of Shaw discloses a color quality feature where a quality level is applied to a set of image data to reduce the number of initial number of possible colors to a smaller number of possible colors. This is seen to be modifying the color depth of the data)

Examiner recites the same rationale to combine used in claim 9.

Conclusion

73. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN S. MAI whose telephone number is (571)270-5001. The examiner can normally be reached on Monday through Friday 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571-272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KSM

/Bunjob Jaroenchonwanit/
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